

## CLAIMS

We claim:

1. A liquid pump comprising a pressure vessel with end-openings for hermetically holding a liquid therein, wherein the liquid flows from one of the end-openings to the other end-opening by utilizing a difference in a coefficient of thermal expansion of the pressure vessel and the liquid caused by heating or cooling the pressure vessel and the liquid together.
2. The liquid pump according to Claim 1 further comprising a heating-cooling bath for receiving the pressure vessel having sufficient heat conductibility.
3. The liquid pump according to Claim 1, wherein the pressure vessel generates heat by voltage and the heating is conducted by applying voltage to the pressure vessel.
4. The liquid pump according to Claim 1, wherein the pressure vessel is a tube having an inner diameter of about 0.5 mm or less and a length of about 10 m or more.
5. The liquid pump according to Claim 2, wherein the pressure vessel is a tube having an inner diameter of about 0.5 mm or less and a length of about 10 m or more.
6. The liquid pump according to Claim 3, wherein the pressure vessel is a tube having an inner diameter of about 0.5 mm or less and a length of about 10 m or more.
7. The liquid pump according to Claim 2, wherein the heating-cooling bath is any one of an air bath and a liquid bath.